

REMARKS

In the February 8, 2005 Office Action, the Examiner objected to the drawings. The Examiner also objected to the specification. The Examiner rejected claims 1-10 and 20-21 as obvious over Lindenmeir (U.S. Patent No. 6,169,888) in view of Ohe (U.S. Patent No. 4,742,567). The Examiner indicated that claim 11 would be allowable if rewritten to incorporate the limitations of the referenced independent claim. The Examiner also indicated that claims 12-19 are allowable if claim 11 was rewritten.

Applicant is submitting herewith revised drawings with appropriate labels in the blocks in Figures 1 and 2 and a letter to the draftsman requesting drawing changes. Applicant respectfully submits that the changes do not add new matter but merely add matter referenced in the specification. Applicant submits that the revised drawings are sufficient to overcome the current objection.

Pursuant to the Examiner's suggestion, Applicant has amended the specification to correct the minor reference error in the description of the receiver.

The present invention is directed toward an antenna diversity receiver which has multiple antennas and a switching circuit to select the antenna to minimize multi-path distortion. A plurality of FM antennas is connected to a controllable switching circuit which sequentially switches to one of the FM antennas. The selected antenna is connected to a receiver via an antenna cable. The receiver receives the signal from the selected FM antenna and has a multipath detector coupled to a pulse generator. The pulse generator generates a pulse signal at the detection of multipath interference from the antenna. The pulse signal is converted into a pulse signal pair having a first signal pulse followed by a second signal pulse having a signal polarity opposite to the signal polarity of the first signal pulse. The pulse signal pair has a

waveform varying symmetrically around a reference level and is supplied through the antenna cable to the antenna device. The pulse signal pair has no DC signal energy preventing any DC level variation of a detection threshold level. This stabilizes the detection accuracy of the pulse signals.

In contrast, Lindenmeir is directed toward a multiple switching device having a simple indicating signal 10 which is binary in configuration to indicate interference. (Col. 3, lns. 45-52). This pulse is not filtered and the pulse has DC signal energy to trigger the selection of a different antenna.

The Examiner has only cited Ohe for disclosing a pulse signal pair based on the output of a differentiator. As the Examiner has noted, a differentiated pulse having a positive and negative component is shown in the fourth line of Fig. 7 of Ohe. However, there is no explanation of the opposite polarity of these signals other than as a transitional signal for generating other pulses explained in the specification such as signal 106 in Fig. 7. Ohe discloses an on pulse 100 and an off pulse 102 which is triggered after a period T. (Col. 6, lns. 41-50). The on pulse 100 and off pulse 102 are input into a bi-stable multi vibrator 78 which generates a continuous signal 104 which is passed through a differentiator 80 resulting in the trace in Fig. 7. A monostable vibrator 82 detects only negative voltage (i.e. the second pulse output from the differentiator 80) which produces a signal 106 which resets a further pulse counter which generates another signal to switch the antennas. (Col. 6, lns. 55-61). It is evident that the pulses in all of these processes and in particular the pulses of opposite pulses have DC signal energy to trigger the monostable vibrator, unlike the pulse signals of the present invention.

In order to further distinguish the present invention from Lindenmeir and Ohe, Applicant has amended claim 1 to require that the pulse signal pair has no DC signal energy. Even if

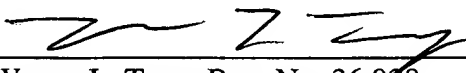
Lindenmeir used the dual pulses which are disclosed by Ohe, the pulse signal would have to have negative voltage to trigger the monostable vibrator. Both references rely on pulses which have DC signal energy to trigger the selection of different antennas. Thus, neither of these references would anticipate the limitation of a pair of pulse signals with no DC signal energy. Amended claim 1 is thus allowable over Lindmeir and Ohe either separately or in combination. Claims 3-5 depend from claim 1 and claims 11-12 depend from claim 10 and are similarly allowable.

Applicant has amended claim 11 to incorporate all of the limitations of the previous parent claims. The Examiner has indicated claim 11 is allowable as it now incorporates all of the limitations of the base claim. Claims 12-19 are dependent on claim 11 and are similarly allowable.

For the foregoing reasons, Applicant respectfully submits that the pending claims (1-21) are in condition for allowance and that the Examiner issue a notice of allowance in the above-identified application. The Office is authorized to charge all fees, if any, associated with this Amendment to Deposit Account No. 13-0019.

Respectfully submitted,

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